

HEAT EXCHANGER

ABSTRACT OF THE DISCLOSURE

Outsides of flat tubes through which a first fluid flows are formed with wave-shaped surfaces, and fins form meandering passages for a second fluid. While the second fluid is flowing along the fins, it is made turbulent by striking the wave-shaped surfaces of the flat tubes due to the meandering passages. The turbulent flow contacts the outside surfaces of the flat tubes and the front and rear surfaces of the fins, so heat conduction is promoted without the formation of thick boundary layers at these surfaces. Therefore, the heat exchange efficiency is remarkably improved between the first fluid such as warm water flowing through the insides of the flat tubes and the second fluid such as air flowing at the outsides.